



مقایسه دو روش غیر دارویی برای افزایش وزن نوزادان کم وزن نسبت به سن حاملگی

To compare two alternative therapies on gaining weight for SGA newborns



علوم پزشکی
قزوین



منابع



اطلاعات
تفصیلی



مجری و
همکاران



صفحه نخست
سامانه

چاپ
صفحه

مجریان: سونیا اویسی

کلمات کلیدی: **massage therapy, music, small for gestational age.**

اطلاعات کلی طرح	
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عنوان فارسی طرح	مقایسه دو روش غیر دارویی برای افزایش وزن نوزادان کم وزن نسبت به سن حاملگی
عنوان لاتین طرح	To compare two alternative therapies on gaining weight for SGA newborns
کلمات کلیدی	.massage therapy, music, small for gestational age
نوع طرح	
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Small for gestational age, defined as childbirth weight less than ۲۵۰۰ gr in completed weeks or ۲۵۹ days of gestation, is a very significant determinant of neonatal mortality and morbidity which has long-term adverse consequences for health. Globally, ۱۵ million babies are born as low birth weight every year. This is equivalent to ۱ in ۱۰ births and has been increased over the last ۲۰ years. These infants are at higher risk of learning disabilities and respiratory illnesses in comparison to term babies. There are various approaches to manage these babies. Some of them may include fluids and nutrition through intravenous catheters, oxygen supplementation, mechanical ventilation support, kangaroo care (skin to skin warming), massage and music therapies and

ضرورت انجام تحقیق

medications. In the NICU, premature babies are kept under radiant warmers or in incubators

The aim of this study is to investigate and challenge the effects of two alternative (massage and music therapy) on SGA infants at time of delivery in Kosar hospital

هدف کلی

We invite consecutive eligible mothers of SGA neonates who come to Kosar hospital from Dec ۱۵th to March ۲۰th ۲۰. Infants receive ۳ times per day Mosarts classic music therapy within a ۴-week period. . ۳. In control group all variables will be record such as intervention group ۱. Infants receive ۳ times per day massage therapy within a ۴-week. This study is a . Randomized- controlled clinical trial in ۱۵۰ neonates

خلاصه روش کار

اطلاعات مجری و همکاران				
نام و نام خانوادگی	سمت در طرح	نوع همکاری	درجه تحصیلی	پست الکترونیک
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اطلاعات تفصیلی	
عنوان	متن
چکیده طرح	
پیشینه طرح	<p>۱. A study was done in Yazd, The results showed. body massage might be used as an effective and safe non-medical intervention for increasing of weight gain velocity in LBW preterm neonates. (۵) ۲. Another study was done in USA showed that music therapy (MT) administered to stable preterm infants was associated with higher natural killer (NK) cytotoxicity and more daily weight gain. MT may improve the overall outcome of these infants. (۶) ۳. There has been a research done in India which focused on Oil application massage and the result showed improvements in weight gain and cause less weight loss in first ۷ d in low birth weight neonates. (۷) ۴. A study in USA showed that An important contribution from this study was the demonstration of the infants' safety based on physiological stability and no change in agitation/pain scores of the infants receiving</p>

massage. (۸) ۵. There has been another study in USA which suggested that massage has pacifying or stress reducing effects on preterm infants, which is noteworthy given that they experience numerous stressors during their hospitalization. (۹) ۶. Another research in Isfahan suggested that the five days massage therapy is a safe procedure for stable preterm infants to facilitate their weight gain. Mothers can perform this procedure. However more studies are needed to increase the efficacy of their performance. (۱۰) ۷. A study was done in Brazil suggested that massage therapy by mothers combined to skin-to-skin care during neonatal hospital stay improves neurodevelopment outcome at ۲ years corrected age. (۱۱) ۸. Another research in Philadelphia showed some statically significant data between experimental and control groups which supports the hypothesis that neonatal massage reduced stress behavior in preterm infants in the NICU. (۱۲) ۹. A study was done in USA and Control males had decreased heart rate variability (HRV) compared to massage therapy MT) males. There was no difference in HRV between MT and control females. (۱۳) ۱۰. Another research was done in Urbana showed that in contrast to what has sometimes been claimed, there is little to no evidence to date to support effects such as improved immune system, functioning, reduction of spasticity, or amelioration hostility.

(۱۴)

	فهرست کلی فصول
<p>Providing that the results of this study demonstrate that the advantages of massage or music therapies on SGA infants at Kosar hospital in Qazvin using mentioned criteria are positive, we suggest to health policy makers to consider this treatment as suitable plans to cure SGA neonates</p>	هدف از اجرا
<p>Gaining weight in intervention group is more ۱. than control group ۲. Stability of vital sign in intervention group is more than control group ۳. Time of feeding in intervention group is more than control group ۴. Time of sleeping in intervention group is more than control group</p>	فرضیات یا سوالات پژوهشی
	چه موسساتی می توانند از نتایج طرح استفاده نمایند؟
	در صورت ساخت دستگاه نظر صنعت و داوران

ماساژ تراپی - موزیک - نوزادان کم وزن نسبت به سن حام	کلید واژه های فارسی
<p>This study is a Randomized- controlled clinical trial in ۱۵۰ neonates were delivered in Kosar hospital, during ۲۰۱۶. Patients recruiting in this study randomly assigned in three groups based on Balanced Block Randomization. We have ۵۰ Blocks (ABC-BAC-CAB-BCA-ACB-CBA) that based on random will be arranged. The control group receives standard care while the experimental group receive standard care plus ۱۰ min of moderate pressure massage or passive flexion and extension of the limbs ۳ times per day for at least one week based on the mothers' time satisfaction approximately ۳۰-۶۰ min prior to the late afternoon opportunity for nipple feeding. In music intervention group, they receive ۵ min Mosart classic music especial for breast feeding simultaneously of baby feeding. Inclusion criteria: infants between ۲۰۰۰-۲۴۹۹ gr Exclusion criteria: serious illness of babies that cannot bear our intervention</p>	<p>روش پژوهش و تکنیک های اجرایی</p>
<p>The morbidity associated with preterm birth often extends to later life, resulting in enormous physical, psychological and economic costs. More babies survive premature birth, but serious health problems remains unchanged. Between ۱۹۹۵ and ۲۰۰۶ survival shortly after birth of very premature babies has increased by ۱۳ percent (from ۴۰ percent in ۱۹۹۵ to ۵۳ percent in ۲۰۰۶), but the proportion of survivors leaving hospital with major health problems is unchanged.</p>	<p>دلایل ضرورت و توجیه انجام کار</p>
<p>...</p>	<p>کلید واژه های فارسی بازنگری شده</p>
<p>...</p>	<p>فهرست منابع و مراجع علمی داخلی</p>
<p>۱. SCAFIDI FA, FIELD T, SCHANBERG SM. Factors that Predict which Preterm Infants Benefit Most from Massage Therapy. Journal of Developmental & Behavioral Pediatrics. ۱۹۹۳; ۱۴(۳):۱۷۶-۸۰. ۲. Loewy J, Stewart K, Dassler A-M, Telsey A, Homel P. The Effects of Music Therapy on Vital Signs, Feeding, and Sleep in Premature Infants. Pediatrics. ۲۰۱۳; ۱۳۱(۵):۹۰۲-۱۸. ۳. Cevasco AM, Grant RE. Effects of the pacifier activated lullaby on weight gain of premature infants. Journal of music therapy. ۲۰۰۵; ۴۲(۲):۱۲۳-۳۹. ۴. Auto FML, Amancio OMS, Lanza FdC. The effect of music on weight gain of preterm infants older than ۳۲ weeks: a randomized clinical trial. Revista Paulista de Pediatria.</p>	<p>فهرست منابع و مراجع علمی خارجی</p>

۲۰۱۵;۳۳:e۲۹۳-e۹. (۵) Effect of body massage on increase of low birth weight neonates growth parameters: A randomized clinical trial. Iranian journal of reproductive medicine ۲۰۱۴ Mar. (۶) A randomized placebo-controlled trial of massage therapy on the immune system of preterm infants. Pediatrics ۲۰۱۲ Dec. (۷) Effect of Oil Massage on Growth in Preterm Neonates Less than ۱۸۰۰_g: A Randomized Control Trial. Indian journal of pediatrics ۲۰۱۲ Oct. (۸) Touch and massage for medically fragile infants. Evidence-based Complementary and Alternative Medicine (eCAM) ۲۰۰۹ Nov. (۹) Preterm infants show reduced stress behaviors and activity after ۵ days of massage therapy. Infant behavior & development ۲۰۰۷ Oct. (۱۰) ۱۳۹۵ Massage Therapy by Mother or Nurse: Effect on Weight Gain of Premature Infants. Archives of Disease in Childhood ۲۰۱۲. (۱۱) Massage therapy improves neurodevelopment outcome at two years corrected age for very low birth weight infants. Early human development ۲۰۰۹. (۱۲) Does Neonatal Massage Lead to Reduced Stress Behavior in Medically Stable Preterm Infants in the NICU? Master of Science in Health Sciences ۲۰۱۳. (۱۳) Heart rate variability during caregiving and sleep after massage therapy in preterm infants. Early human development ۲۰۱۳. (۱۴) Pediatric massage. A randomized controlled trial. Advance access publication ۲۰۰۶ Nov

خلاصه نتیجه اجرای طرح	
سابقه علمی طرح و پژوهش‌های انجام شده با ذکر مأخذ به ویژه در ایران	
خلاصه طرح طبق اهداف پیش بینی شده	
What Requirements Are Met	
ملاحظات گروه	
ملاحظات ناظر	
Home Address	
Work Place	
We invite consecutive eligible mothers of SGA neonates who come to Kosar hospital from Dec ۱۵th to March ۲۰th. Infants receive ۳ times per day massage therapy within a ۴-week period, when our data are collected before, during, and after the interventions in this group. Infants receive ۳ times per day Mosarts classic music therapy within a ۴-week period, when our data are collected before, during, and after the	جامعه مورد مطالعه و روش نمونه گیری

interventions in this group. In control group all variables will be record such as intervention group. All neonates will be followed by pediatrics every ۱۰ days up to ۱ month after delivery. Also all patients will be rung by medical student every ۳ days. There is a check list that mothers in two intervention groups will fill out about time and duration of massage or music. This study is a Randomized- controlled clinical trial in ۱۵۰ neonates were delivered in Kosar hospital, during ۲۰۱۶. Patients recruiting in this study randomly assigned in three groups based on Balanced Block Randomization. We have ۵۰ Blocks (ABC-BAC-CAB-BCA-ACB-CBA) that based on random will be arranged. The control group receives standard care while the experimental group receive standard care plus ۱۰ min of moderate pressure massage or passive flexion and extension of the limbs ۳ times per day for at least one week based on the mothers' time satisfaction approximately ۳۰-۶۰ min prior to the late afternoon opportunity for nipple feeding. In music intervention group, they receive ۵ min Mosart classic music especial for breast feeding simultaneously of baby feeding. Inclusion criteria: infants between ۲۰۰۰-۲۳۹۹ gr Exclusion criteria: serious illness of babies that cannot bear our intervention. ۳-۳

جامعه مورد مطالعه و روش نمونه گیری (Sampling Procedures):
SGA babies who are (قیدکردن فرمول و پارامترها ضروری است) delivered in Kosar academic hospital in Qazvin city (west of Tehran, I.R.Iran). The sample size was calculated through the formula of $N = \frac{((Z_{1-\alpha/2} + Z_{1-\beta}))^2 \cdot p(1-p)}{(p_1 - p_2)^2}$, considering $p = ((p_1 + p_2))/2$, $P_1 = 0.7$, $P_2 = 0.5$, $\alpha = 0.05$ and $\beta = 0.2$ that yielded $N = 50$ (۱) in each group

Small for gestational age, defined as childbirth weight less than ۲۵۰۰ gr in completed weeks or ۲۵۹ days of gestation, is a very significant determinant of neonatal mortality and morbidity which has long-term adverse consequences for health. Globally, ۱۵ million babies are born as low birth weight every year. This is equivalent to ۱ in ۱۰ births and has been increased over the last ۲۰ years. These infants are at higher risk of learning disabilities and respiratory illnesses in comparison to term babies. The morbidity associated with preterm birth often extends to later life, resulting in enormous physical, psychological and economic costs. More babies survive premature birth, but

بیان مسأله و بررسی متون

serious health problems remains unchanged. Between ۱۹۹۵ and ۲۰۰۶ survival shortly after birth of very premature babies has increased by ۱۳ percent (from ۴۰ percent in ۱۹۹۵ to ۵۳ percent in ۲۰۰۶), but the proportion of survivors leaving hospital with major health problems is unchanged. There are various approaches to manage these babies. Some of them may include fluids and nutrition through intravenous catheters, oxygen supplementation, mechanical ventilation support, kangaroo care (skin to skin warming), massage and music therapies and medications. In the NICU, premature babies are kept under radiant warmers or in incubators. Evaluating the situation of these infants can be done by sophisticated measurement of temperature, respiration, cardiac function, oxygenation, urine output, weight gain, amount of feeding, and brain activity. According to some studies massage can also be used as a suitable tool to improve the health situation of these infants and shortens their hospitalization time.

Otherwise, some studies believe that this method makes no significant progress in their clinical manifestations. Discriminant function analyses determining the characteristics that distinguished the high from the low weight gainers suggested that the control infants who, before the study, consumed more calories and spent less time in Intermediate care gained more weight. In contrast, for the massage therapy group, the pattern of greater caloric intake and more days in Intermediate care before the study period along with more obstetric complications differentiated the high from the low weight gainers, suggesting that the infants who had experienced more complications before the study benefitted more from the massage therapy. These variables accurately predicted ۷۸٪ of the infants who benefited significantly from the massage therapy. Thus, these variables can be used to suggest infants who would benefit most from future massage therapy programs. (۱). Also, many studies show that music therapist can influence cardiac and respiratory function. Entrained with a premature infant's observed vital signs, sound and lullaby may improve feeding behaviors and sucking patterns and may increase prolonged periods of quiet-alert states. Parent-preferred lullabies, sung live, can enhance bonding, thus decreasing the stress of

parents associate with premature infant care.^(۲) Results of another study indicated no statistical significance among the amount of time premature infants sucked/received music according to their schedule, although there were noticeable differences in the average percent of music reinforcement received according to assigned block. Infants who participated in PAL trials ۳۰ minutes prior to feeding scored the highest average at ۷۷.۲۵%, followed by ۷۱% for infants who participated in PAL trials during feeding. Other times, primarily after the infants' feeding, resulted in averages of ۵۹% and ۵۴.۵%; these infants often fell asleep after their feeding and did not complete the full ۱۵-minute trial. Based on this research and previous research on NNS, it seems beneficial for premature infants to participate in PAL opportunities ۳۰ minutes prior to feeding.^(۳) By measuring the physiological effects of music by Mozart played to pre-term newborns for ۳۰ minutes, Dr. Mandel and Dr. Lubetzky and colleagues documented that when the babies were exposed to the music, they expended less energy — a process that can lead to faster weight gain and growth. That's important because the sooner preemies attain an acceptable body weight, the sooner they can go home. The longer they have to stay in the hospital, the more they are exposed to possible infections. What's more, a healthy body weight is believed to strengthen their immune systems so the babies are more likely to avoid illness in the future. The recorded music with multimodal stimulation is associated with a greater gain in body weight of hospitalized preterm infants as well as presents a positive influence on vital and stress signs.^(۴) The aim of this study is to investigate and challenge the effects of two alternative (massage and music therapy) on SGA infants at time of delivery in Kosar hospital in Qazvin using mentioned criteria



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